

**Meeting of the Central Valley Flood Protection Board  
August 26, 2010**

**Staff Report – Encroachment Permit**

**California Department of Parks and Recreation  
Pine Creek Day-Use Facility and Habitat Restoration Project, Butte County**

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**1.0 – ITEM**

To consider approval of Permit No. 18575 (Attachment B)

**2.0 – APPLICANT**

California Department of Parks and Recreation (CDPR)

**3.0 – LOCATION**

The project is located just south of the confluence of the Sacramento River and Pine Creek, along the south bank of the Sacramento River. (Sacramento River Designated Floodway [SRDF], Butte County; Figure 1, Attachment A).

**4.0 – DESCRIPTION**

The applicant proposes to develop a public day-use facility and habitat restoration of an existing orchard on a 41-acre parcel within the SRDF at River Mile (RM) 196 on the left (east) bank of the Sacramento River (Figure 2, Attachment A).

**5.0 – PROJECT ANALYSIS**

**Background and Existing Land Use**

The Pine Creek – Sacramento River confluence is a popular public recreation area of the Sacramento River, in conjunction with the Irvine Finch River Access which is near Hamilton City, approximately 2 miles upstream from the proposed project site.

The existing land use at the applicant's proposed public day-use site is currently agricultural (Figure 3, Attachment A). Two large old growth English walnut orchards covering approximately 30 acres dominate the existing project site. The remainder of the parcel is covered with riparian vegetation. There is an internal drainage swale running through the site in-between the two old growth orchards, and along the east

bank of the Sacramento River, which drains the site south towards the river (Site Photographs, Attachment A).

### **Past Floodway Encroachment Permit History near Proposed Project**

The proposed Pine Creek Day-Use Facility is part of the overall Bidwell-Sacramento River State Park plan and augments the CDPR's Pine Creek Boat Access Ramp facility located north of this proposed project along River Road. The CDPR obtained CVFPB Permit No. 17197 on April 7, 2000 for the Pine Creek Boat Access Ramp.

### **Proposed Project Specifics**

The proposed project includes the following features (Project Plan, Attachment A): paved driveway entrances, steel access gates, gravel parking area, restroom/storage building, picnic sites with pre-cast concrete benches and steel barbeques, viewing benches, hiking trails, concrete pathways, grass recreation area, overflow parking area, native plant restoration areas and a vehicle barrier.

### **Project Funding**

A grant from the California Natural Resources Agency will be used to fund the proposed project. These funds will expire in May of 2011.

### **Proposed Restoration Planting Plan**

The CDPR proposes to remove most of the existing 2 old walnut orchards and replace them with native vegetation within the proposed project site (Figure 4, Attachment A). CVFPB staff has reviewed the proposed restoration plan and have found it to be compliant with Title 23 regulations.

### **5.1 – Hydraulic Analysis**

The applicant contracted with Ayres Associates (AA) to perform hydraulic modeling of Sacramento River flood flows for the existing site condition, and for the existing plus proposed project condition. A two-dimensional (2D) model was used by AA which covers the reach of the Sacramento River from RM 191 to RM 199. The applicant's proposed project is located within the model's limits at RM 196 (Figure 1, Attachment C), and was modeled using site-specific cross sections (Figure 2, Attachment C).

The Manning's roughness coefficients used by AA ranged from 0.025 for a road, up to 0.16 for Cottonwood Riparian Forest. Upstream flow data was peak flow data from the 1995 flow event published by the United States Geological Survey (USGS). The three following inflows were used in the 2D model: 170,000 cubic feet per second (cfs) from the Sacramento River, 15,000 cfs from Mud Creek, and 7,000 cfs from Big Chico Creek.

The 2D hydraulic model results concluded there is very little change in the existing water surface elevation due to the proposed project. The largest change in water depth is approximately an increase of 0.06 ft located within the proposed picnic and grass recreational area of the project (Figure 3, Attachment C). All other proposed project improvements to the existing area did not increase the existing water surface elevation in the model simulations.

## **5.2 – Geotechnical Analysis**

No geotechnical investigation was needed for this project because the applicant does not propose to alter any natural area watercourses nor install other flood control features within the SRDF as part of their proposed project.

## **5.3 – Additional Staff Analysis**

Staff reviewed the permit application, hydraulic analysis, proposed site plan and scope, operations and maintenance plan, environmental restoration/planting plan, past floodway encroachment permit history and field visited the site to evaluate the applicant's proposed project and its possible effects on the Adopted Plan of Flood Control. Upon consideration of the all of the above, it is this author's opinion that this project will not be injurious to the Adopted Plan of Flood Control and better the Sacramento River system.

## **6.0 – AGENCY COMMENTS AND ENDORSEMENTS**

The comments and endorsements associated with this project, from all pertinent agencies are shown below:

- A 208.10 comment letter is not required from the U.S. Army Corps of Engineers because the project is in a designated floodway with no project levee or other project flood control facilities at or near the site. The proposed project is located inside of the Sacramento River Designated Floodway.
- There is no local maintaining agency for the project area.

## **7.0 – CEQA ANALYSIS**

Board staff has prepared the following CEQA Findings:

The Board, as a Responsible Agency under CEQA, has reviewed Draft Initial Study/Negative Declaration (October 2009, SCH No. 2009102054), Final Initial Study/Negative Declaration (February 2010) and Notice of Determination (February 3, 2010) for the Sacramento River Access at Pine Creek Facilities Development and Habitat Restoration Project, prepared by the lead agency, California Department of

Parks and Recreation. These documents, including project design, may be viewed or downloaded from the Central Valley Flood Protection Board website at <http://www.cvfpb.ca.gov/meetings/2010/8-26-2010agenda.cfm> under a link for this agenda item. The documents are also available for review in hard copy at the Board and California Department of Parks and Recreation office.

California Department of Parks and Recreation has determined that the project would not have a significant effect on the environment and filed a Notice of Determination on February 3, 2010 with the State Clearinghouse. Board staff finds that the project will not have a significant effect on the environment.

### **8.0 – SECTION 8610.5 CONSIDERATIONS**

1. Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science that related to the scientific issues presented by the executive officer, legal counsel, the Department or other parties that raise credible scientific issues.

The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this permit.

3. Effects of the decision on the entire State Plan of Flood Control:

The project, a proposed public day-use Sacramento River access facility which also includes habitat restoration from existing old growth walnut orchards, should have only minimal effects on the State Plan of Flood Control.

4. Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

Future events, changes in hydrology and climate may increase flows in the Sacramento River which in turn would increase the flood risk for the project.

### **9.0 – STAFF RECOMMENDATION**

Staff recommends that the Board adopt the CEQA findings, approve the permit and direct staff to file a Notice of Determination with the State Clearinghouse.



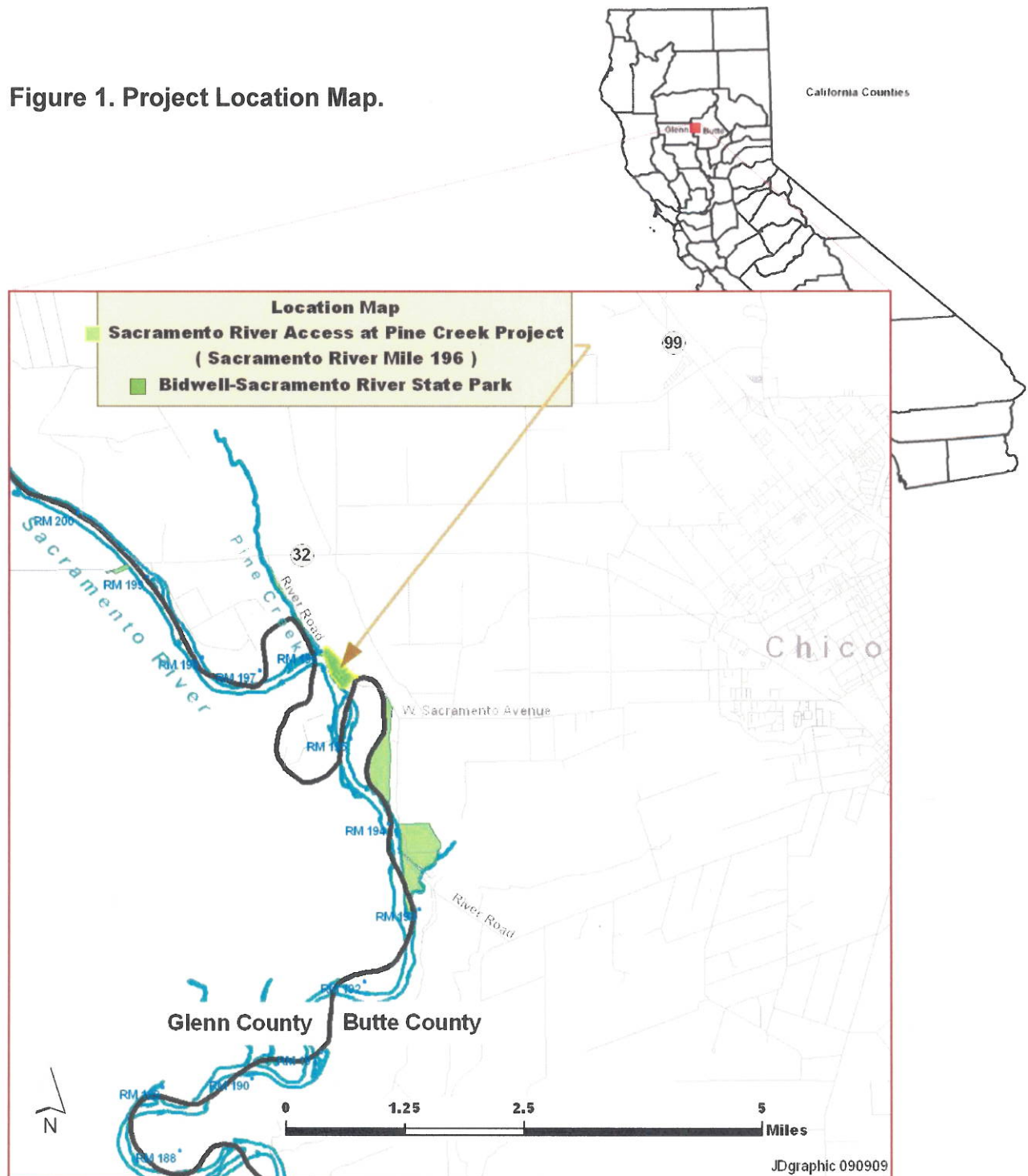
**10.0 – LIST OF ATTACHMENTS**

- A. Location Maps and Photos
- B. Permit No. 18575
- C. Additional attachments (Hydraulic report figures)

Design/Overall Review:	Jon Tice, P.E.
Environmental Review:	James Herota
Document Review:	Gary Lemon, P.E. / Len Marino, P.E.

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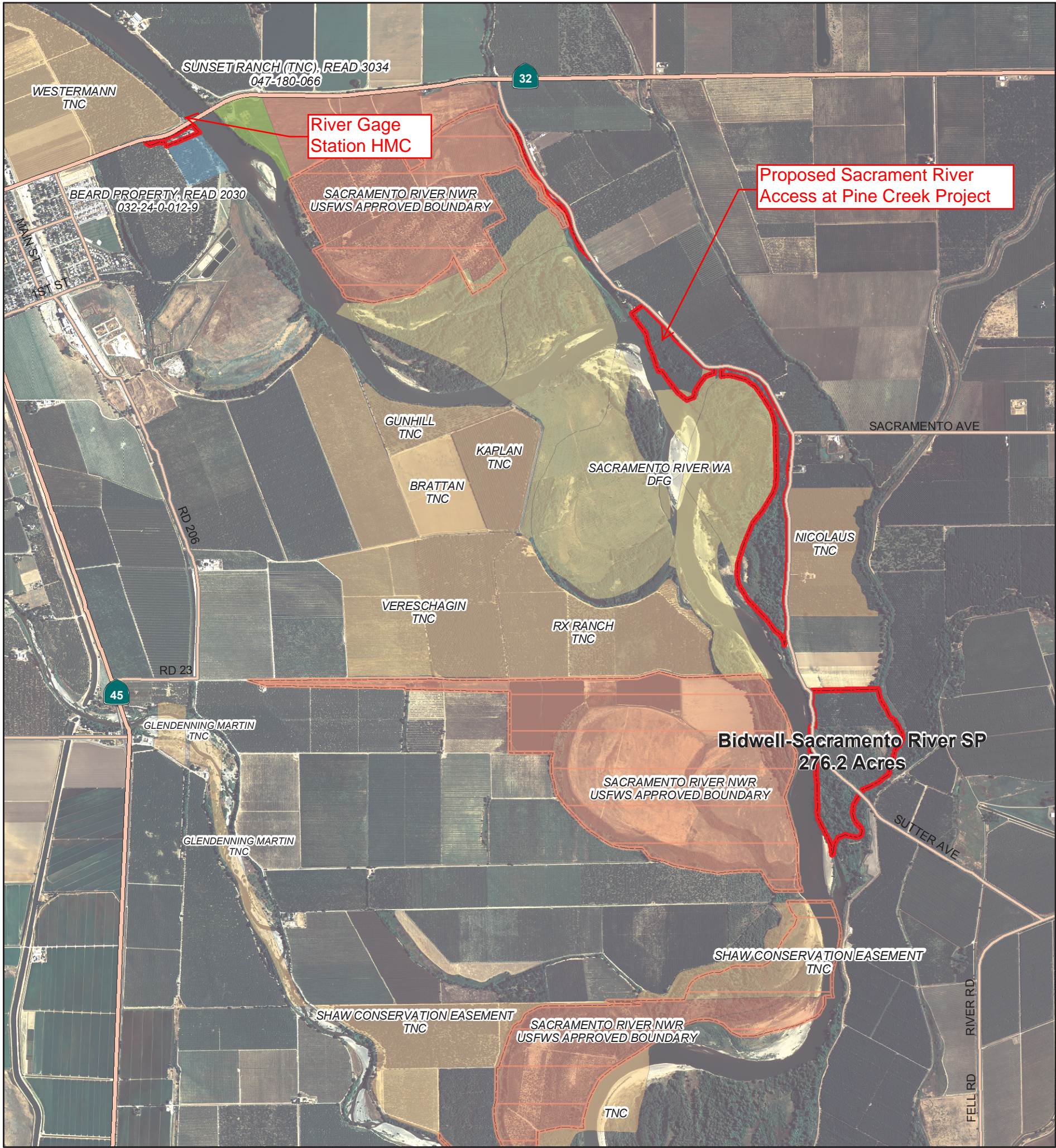
Figure 1. Project Location Map.



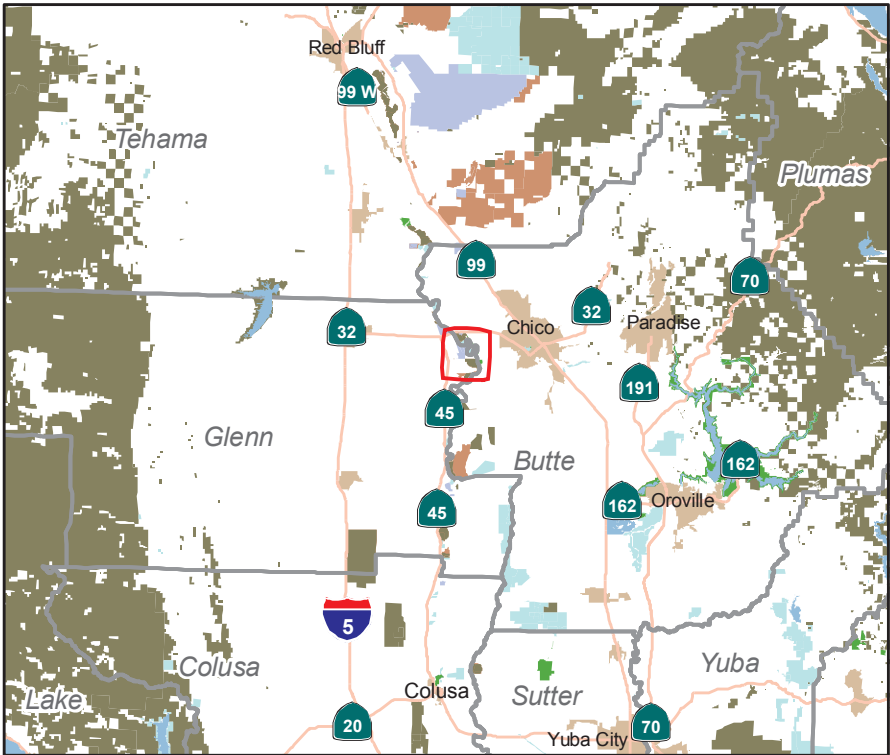


Bidwell-Sacramento River State Park

Figure 2,  
Attachment A



Regional Map. Map area above outlined in red.



Main Map Legend

- State Park Boundary
- State Park Subunit Boundary
- USFWS Approved NWR Boundary
- California Department of Fish and Game (DFG)
- The Nature Conservancy (TNC)
- United States Fish and Wildlife Service (USFWS)
- Sunset Ranch (TNC), READ 3034
- Beard Property, READ 2030

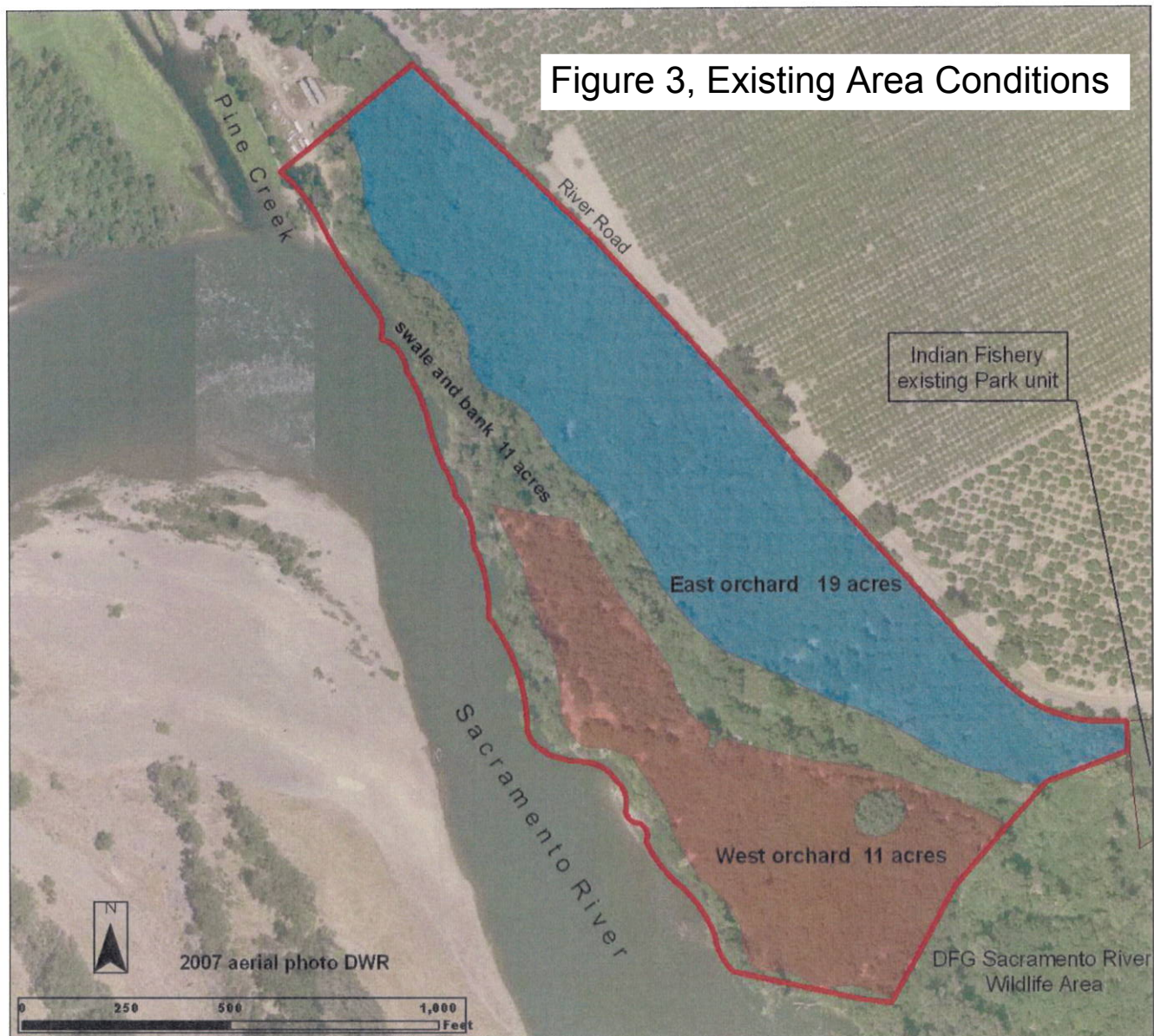
Regional Map Legend

- State Parks
- Federal
- Other State
- Local
- Land Trusts
- Conservation Easements
- Major Roads
- Counties
- Urban Areas

Aerial Imagery: National Agricultural Imagery Program, 2005. 1 meter resolution.  
Topo Maps: USGS 1:24,000, and 1:100,000 scale series.  
Public and Conservation Lands: GreenInfo 2008, and Vestra, 2005.  
Beard and Sunset Ranch Properties: READs 2030, 3034.

Acreage is shown along with unit name for State Parks, and other Public and Conservation Lands. These values are calculated based on Geographic Information Systems, and may differ from county assessor maps.





Examining soil with the archeologist in the East orchard March 5, 2008 :





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# LEGEND

NOTE: ALL ITEMS LISTED ARE PROPOSED  
UNLESS OTHERWISE NOTED AS EXISTING

- PROPERTY BOUNDARY
- TREATED WOOD POLE TYPE VEHICLE BARRIER  
STEEL GATES AT ALL (3) VEHICLE ENTRANCES
- GRAVEL PARKING AREA INCLUDING  
(3) CONCRETE ADA PARKING SPACES
- RESTROOM W/ ATTACHED STORAGE  
FOR WELL AND WATER SUPPLY  
EQUIPMENT
- PICNIC SITE
- GROUP PICNIC SITE
- VIEWING BENCH  
SEE DETAIL 4, SHT 3.
- PARK HOST SITE (FUTURE)
- CONCRETE PATHWAY
- HIKING TRAILS (GRADE / COMPACT EXISTING SOIL)
- EXISTING WALNUT TREES TO REMAIN  
TEMPORARILY FOR SHADE IN RECREATION AREAS
- GRASS RECREATION AREA
- OVERFLOW PARKING AREA PLANTED  
W/ NATIVE GRASSES AND TREES
- NATIVE PLANT RESTORATION AREAS.  
EXISTING WALNUT ORCHARD TO BE REMOVED
- EXISTING RIPARIAN SWALE TO REMAIN. PROPOSED  
SELECTIVE NON-NATIVE PLANT ERADICATION

PROPOSED FUTURE  
ADA PICNIC SITES (2) &  
CONCRETE WALK EXTENSION

PROPOSED GRAVEL MAINTENANCE  
ACCESS W/ PAVED ENCROACHMENT  
AND STEEL GATE, SEE DETAIL 1&2, SHT 2

STOP SIGN

PROPOSED GRAVEL PARKING ENTRANCE  
W/ PAVED ENCROACHMENT  
AND STEEL GATE, SEE DETAIL 1&2, SHT 2

STOP SIGN

ALL PARKING CONTROL SIGNS  
FOR RIVER RD INSTALLED ONTO  
VEHICLE BARRIER  
SEE DETAIL 2, SHT 3

EXISTING AG WELL TO BE USED  
FOR LANDSCAPE IRRIGATION AND NATIVE  
RESTORATION ESTABLISHMENT-  
SEE IRRIGATION PLAN, SHT 4

PROPOSED GRAVEL MAINTENANCE  
ACCESS W/ PAVED ENCROACHMENT  
AND STEEL GATE, SEE DETAIL 1&2, SHT 2

STOP SIGN

PROPOSED FUTURE  
TRAIL EXTENSION



0 100 200 400  
FEET

Attachment A

PERMIT REVIEW  
- NOT FOR CONSTRUCTION -



NORTHERN BUTTES  
DISTRICT  
400 Glen Drive  
Oroville, CA  
95966

DESIGNED:	MT
DRAWN:	MT
CHECKED:	DR
DATE:	10/14/09

REVISIONS		
3-15-10	MT	
8-3-10	MT	

BIDWELL SACRAMENTO RIVER STATE PARK  
SACRAMENTO RIVER ACCESS AT PINE CREEK

## PROJECT PLAN

DRAWING NO.

SHEET NO.

1 OF 6

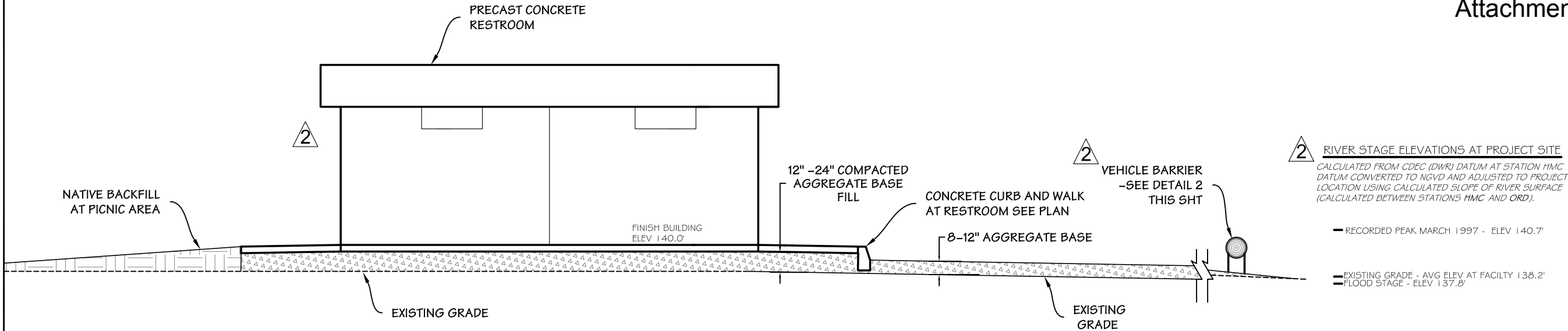


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NORTHERN BUTTES  
DISTRICT  
400 Glen Drive  
Oroville, CA  
95966

Attachment A



2 RIVER STAGE ELEVATIONS AT PROJECT SITE  
CALCULATED FROM CDEC (DWR) DATUM AT STATION HMC  
DATUM CONVERTED TO NGVD AND ADJUSTED TO PROJECT  
LOCATION USING CALCULATED SLOPE OF RIVER SURFACE  
(CALCULATED BETWEEN STATIONS HMC AND ORD).

— RECORDED PEAK MARCH 1997 - ELEV 140.7'

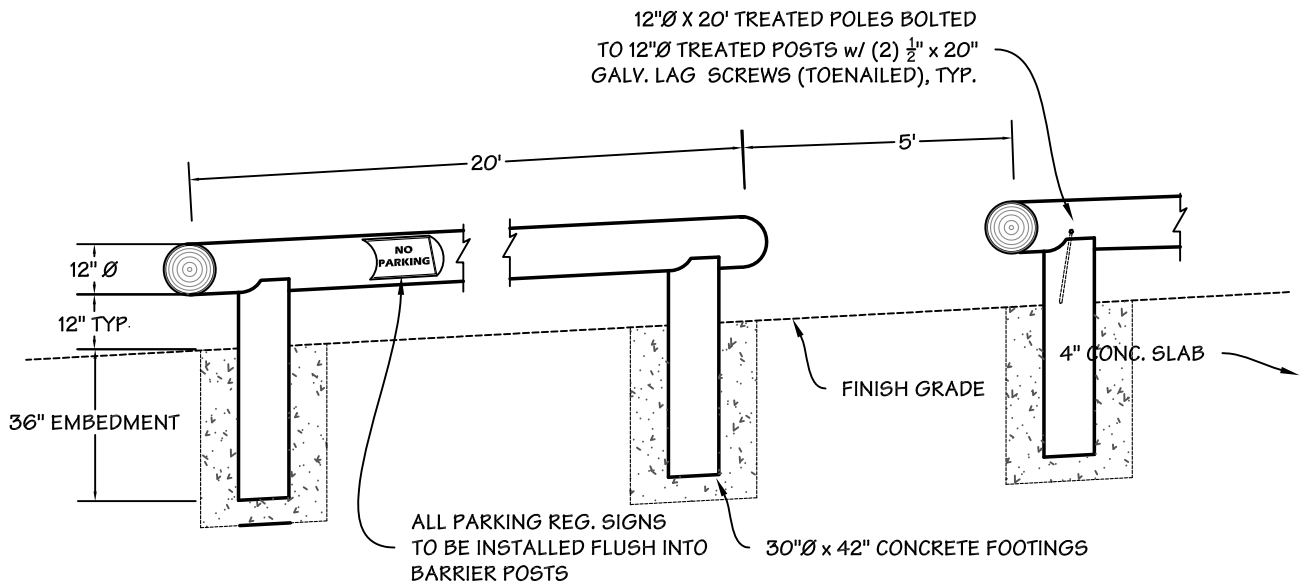
— EXISTING GRADE - AVG ELEV. AT FACILITY 138.2'

— FLOOD STAGE - ELEV 137.8'

— MONITOR STAGE - ELEV 132.8'

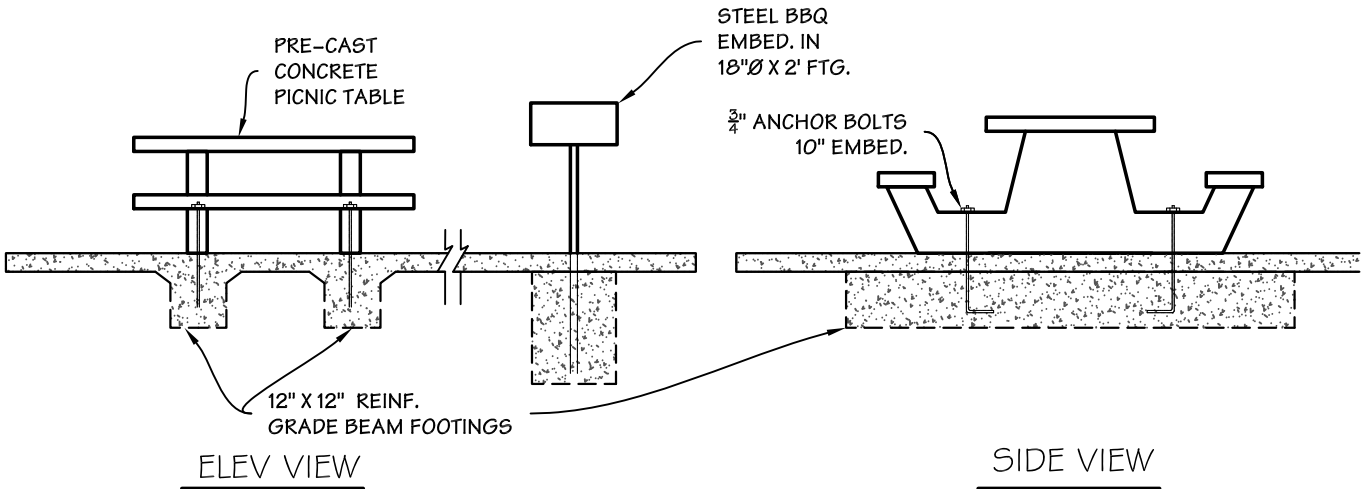
1 TYPICAL SECTION

NO SCALE



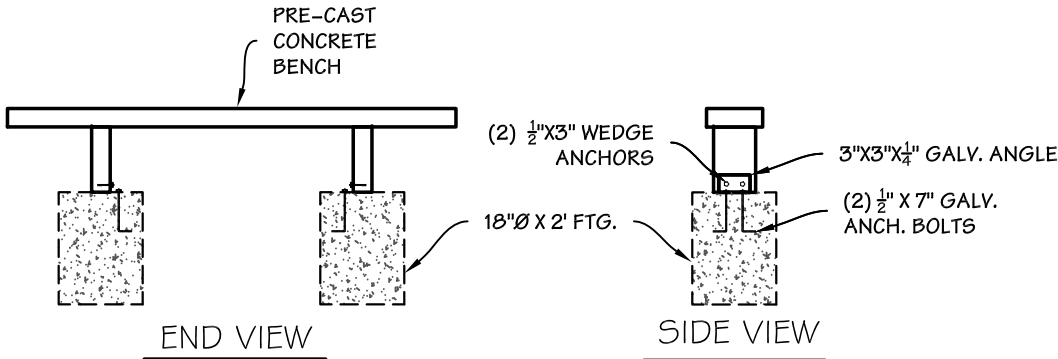
2 VEHICLE BARRIER DETAIL

NO SCALE



3 PICNIC SITE DETAILS

NO SCALE



4 VIEWING BENCH DETAILS

NO SCALE



PERMIT REVIEW  
▪ NOT FOR CONSTRUCTION ▪

DESIGNED: MT  
DRAWN: MT  
CHECKED: DR  
DATE: 10/14/09

REVISIONS	
3-22-10	MT
3-22-10	MT

BIDWELL SACRAMENTO RIVER STATE PARK  
SACRAMENTO RIVER ACCESS AT PINE CREEK  
TYPICAL CROSS SECTION  
AND DETAILS

DRAWING NO.

SHEET NO.

3 OF 6 2





Approximate location of  
proposed day-use facility  
main entrance.

Proposed project  
River Road frontage.

Looking S on the east side of River Road at east side  
of proposed Pine Creek project site; August 10, 2010.

Attachment A,  
Photo No. 1





Maintenance access  
road entrance proposed  
in this general area.

Looking SE across River Road at proposed Pine  
Creek project maintenance access road entrance;  
August 10, 2010.

Attachment A,  
Photo No. 2





Looking E through orchard from proposed  
maintenance access road; August 10, 2010.

Attachment A,  
Photo No. 3

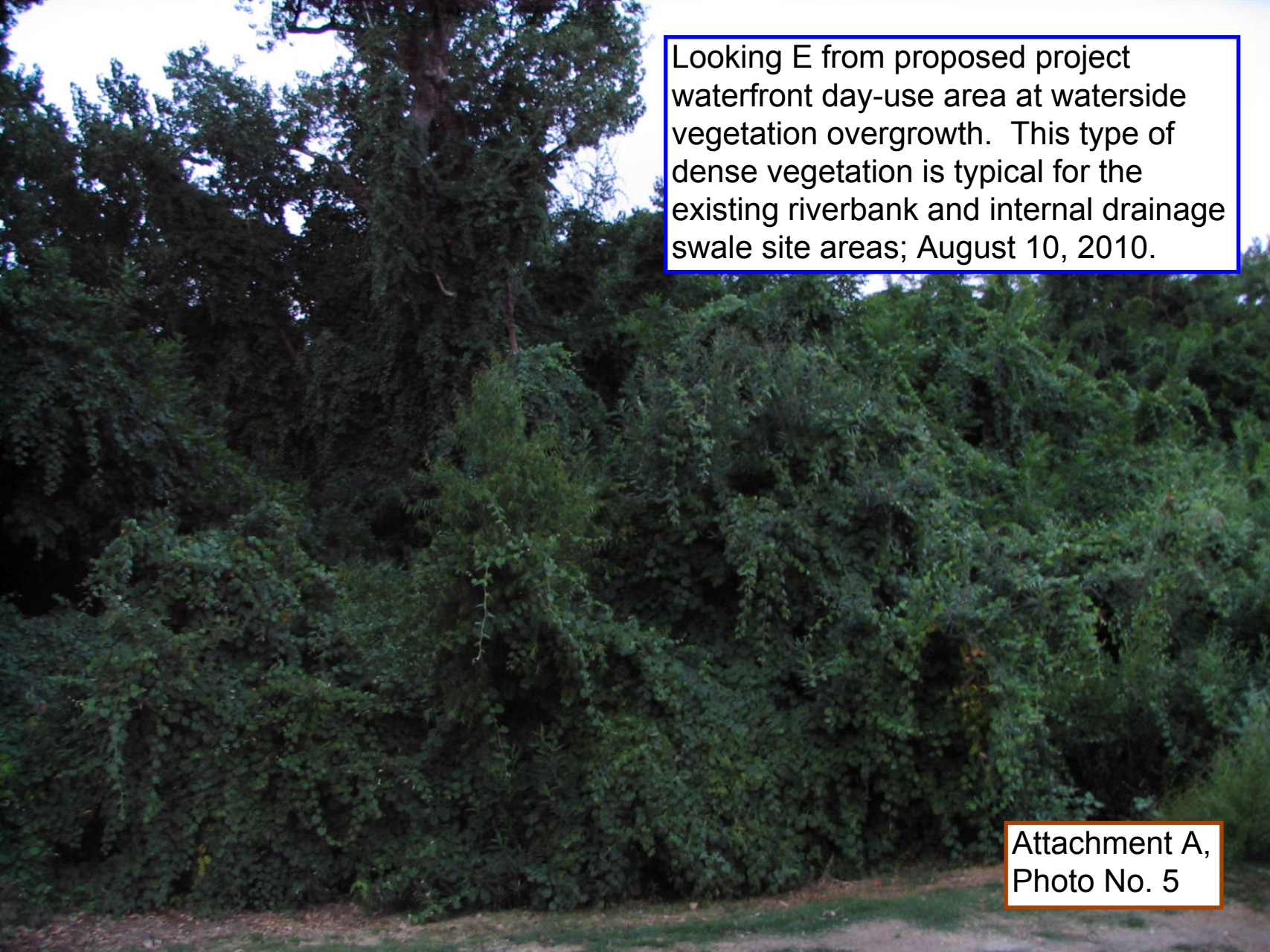




Looking N up at proposed maintenance road from  
proposed waterfront day-use area; August 10, 2010.

Attachment A,  
Photo No. 4

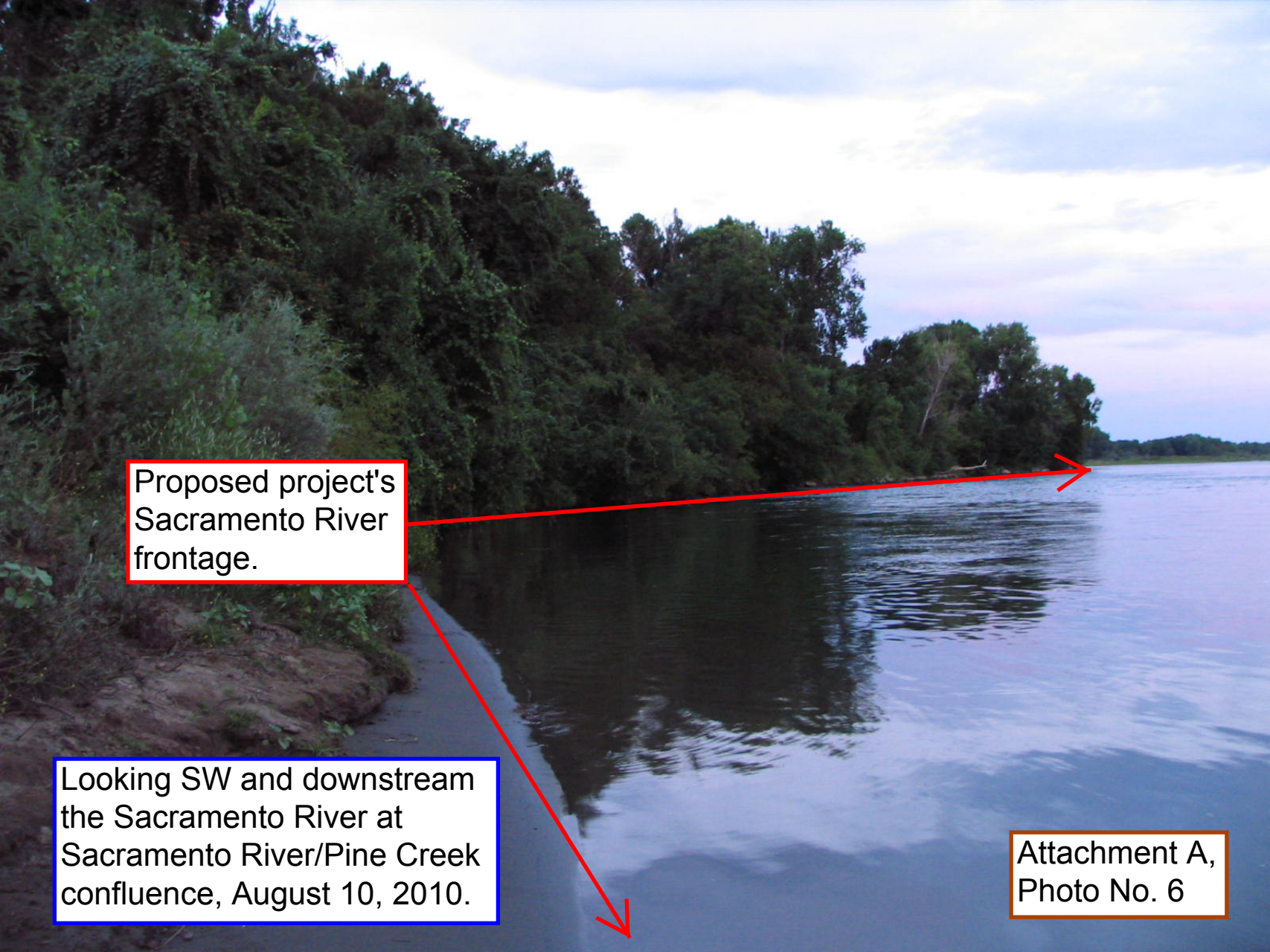




Looking E from proposed project waterfront day-use area at waterside vegetation overgrowth. This type of dense vegetation is typical for the existing riverbank and internal drainage swale site areas; August 10, 2010.

Attachment A,  
Photo No. 5





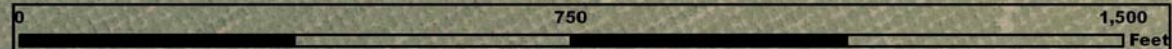
Proposed project's  
Sacramento River  
frontage.

Looking SW and downstream  
the Sacramento River at  
Sacramento River/Pine Creek  
confluence, August 10, 2010.

Attachment A,  
Photo No. 6



# Sacramento River Access at Pine Creek Bidwell-Sacramento River State Park



Habitat restoration planting will be done in rows oriented with the flood water flow as shown, spaced 20 feet apart. Drip irrigation will be installed along rows just under the soil surface with emitters 11 feet apart -- each dot represents a drip emitter. Two plants will be planted 2 feet apart in the row on either side of each emitter : either a woody species plus an herbaceous species, or two herbaceous species. Species distribution will be done used a tile pattern based on species proportions within each vegetation type to facilitate field planting. The overflow parking lot will be planted with Valley oak and sycamore trees at the spacing shown (68 feet apart).

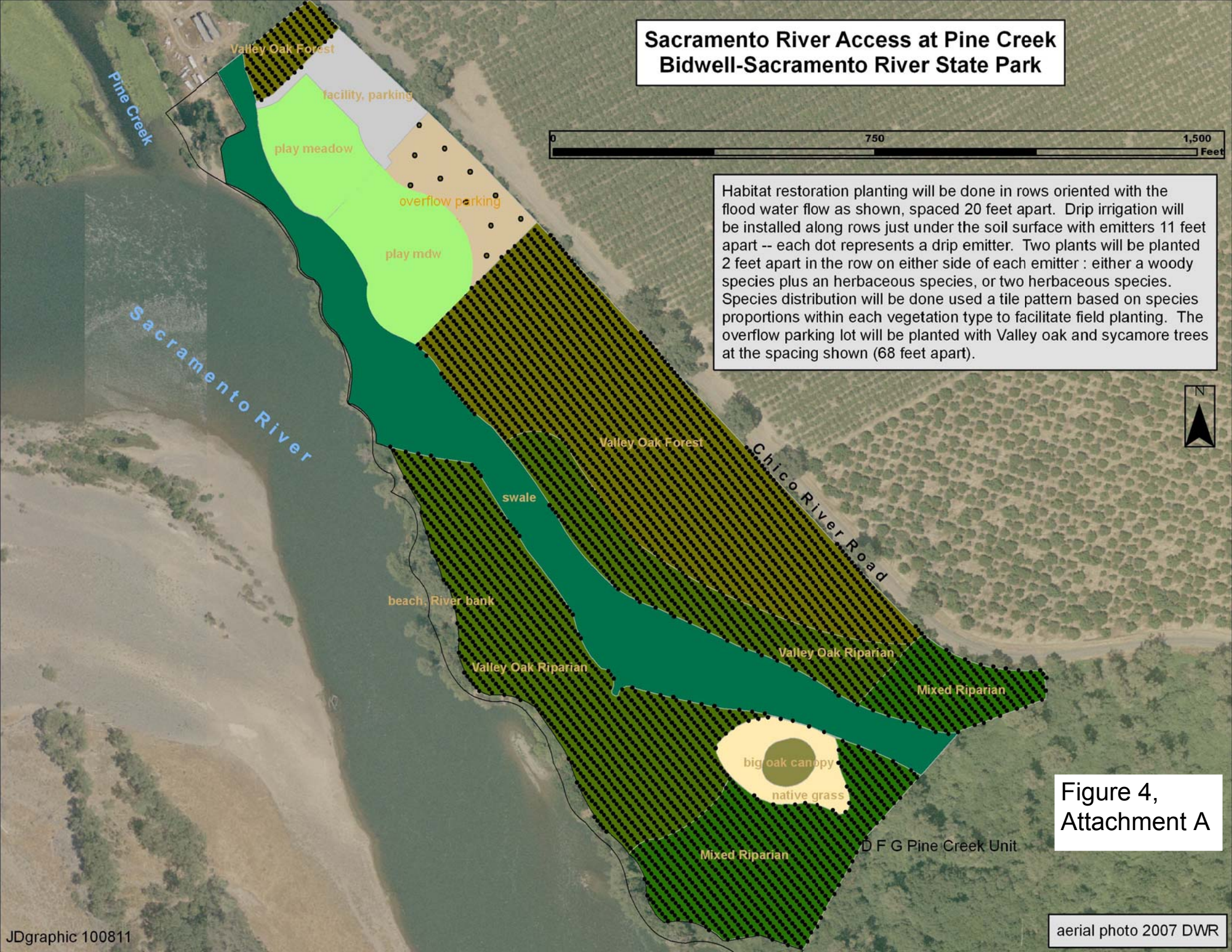


Figure 4,  
Attachment A



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**DRAFT**

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
**THE CENTRAL VALLEY FLOOD PROTECTION BOARD**

**PERMIT NO. 18575 BD**

**This Permit is issued to:**

California Department of Parks and Recreation  
525 The Esplanade  
c/o Matt Teague  
Chico, California 95926

To develop a public day-use facility and restore an existing orchard on a 41-acre parcel by constructing a 5-foot-wide, 6,500-foot-long hiking trail composed of compacted native soil, plant two acres with native grasses, construct picnic area with tables and concrete pads, construct restrooms with concrete pads, install a gravel parking area, install a 6-foot-wide, 600-foot-long concrete path, remove 25 acres of walnut orchard and plant native vegetation, install approximately 2,800-feet of wood vehicle barrier with steel gates, and install an irrigation system within the designated floodway (River Mile 196) of the left (east) bank of the Sacramento River. The project is located west of Chico and west of Sutter Avenue (Section 26, T22N, R1W, MDB&M, Sacramento River, Butte County).

**NOTE:** Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

**(SEAL)**

Dated: \_\_\_\_\_

\_\_\_\_\_  
Executive Officer

**GENERAL CONDITIONS:**

**ONE:** This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

**TWO:** Only work described in the subject application is authorized hereby.

**THREE:** This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

**FOUR:** The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

**FIVE:** Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

**SIX:** This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

**SEVEN:** It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

**EIGHT:** This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

**NINE:** The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

**TEN:** The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

**ELEVEN:** The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

**TWELVE:** Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

#### **SPECIAL CONDITIONS FOR PERMIT NO. 18575 BD**

**THIRTEEN:** All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

**FOURTEEN:** The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources or any other agency responsible for maintenance, in addition to the flood preparation procedures documented in the Sacramento River Access at Pine Creek Operations and Maintenance Plan, incorporated here by reference.

**FIFTEEN:** The permittee shall contact the Department of Water Resources by telephone, (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

**SIXTEEN:** The Central Valley Flood Protection Board and Department of Water Resources shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

**SEVENTEEN:** The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood

control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

EIGHTEEN: The permittee should contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

NINETEEN: The permittee shall be responsible for repair of any damages to the Sacramento River Designated Floodway and other related flood control facilities due to construction, operation, or maintenance of the proposed project.

TWENTY: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion

TWENTY-ONE: No construction work of any kind shall be done during the flood season from November 1st to April 15th without prior approval of the Central Valley Flood Protection Board.

TWENTY-TWO: All cleared trees and brush shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the floodway during the flood season from November 1st to April 15th.

TWENTY-THREE: Landscaping, appurtenances, and maintenance practices shall conform to standards contained in Section 131 of the Central Valley Flood Protection Board's Regulations, unless a variance thereto is specifically granted by the Central Valley Flood Protection Board.

TWENTY-FOUR: Any vegetation which interferes with the successful execution, functioning, maintenance, or operation of the adopted plan of flood control must be removed by the owner at owner's expense upon request by the Central Valley Flood Protection Board, Department of Water Resources, or local maintaining agency. If the owner does not remove such vegetation upon request, the Central Valley Flood Protection Board reserves the right to remove the vegetation at the owner's expense.

TWENTY-FIVE: Aggregate base rock material, compacted top soil, along with concrete for ADA parking stalls and associated picnic sites, shall be placed only within the areas indicated on the approved plans.

TWENTY-SIX: The proposed vault restroom building shall be properly anchored to prevent floatation into the floodway in the event of high water.

TWENTY-SEVEN: The permittee acknowledges that the proposed vault bathroom building is located within the Sacramento River floodway and is subject to periodic flooding.

TWENTY-EIGHT: Any lock on the entrance pipe gate must be accessible to maintenance and inspection personnel and must not be casehardened.

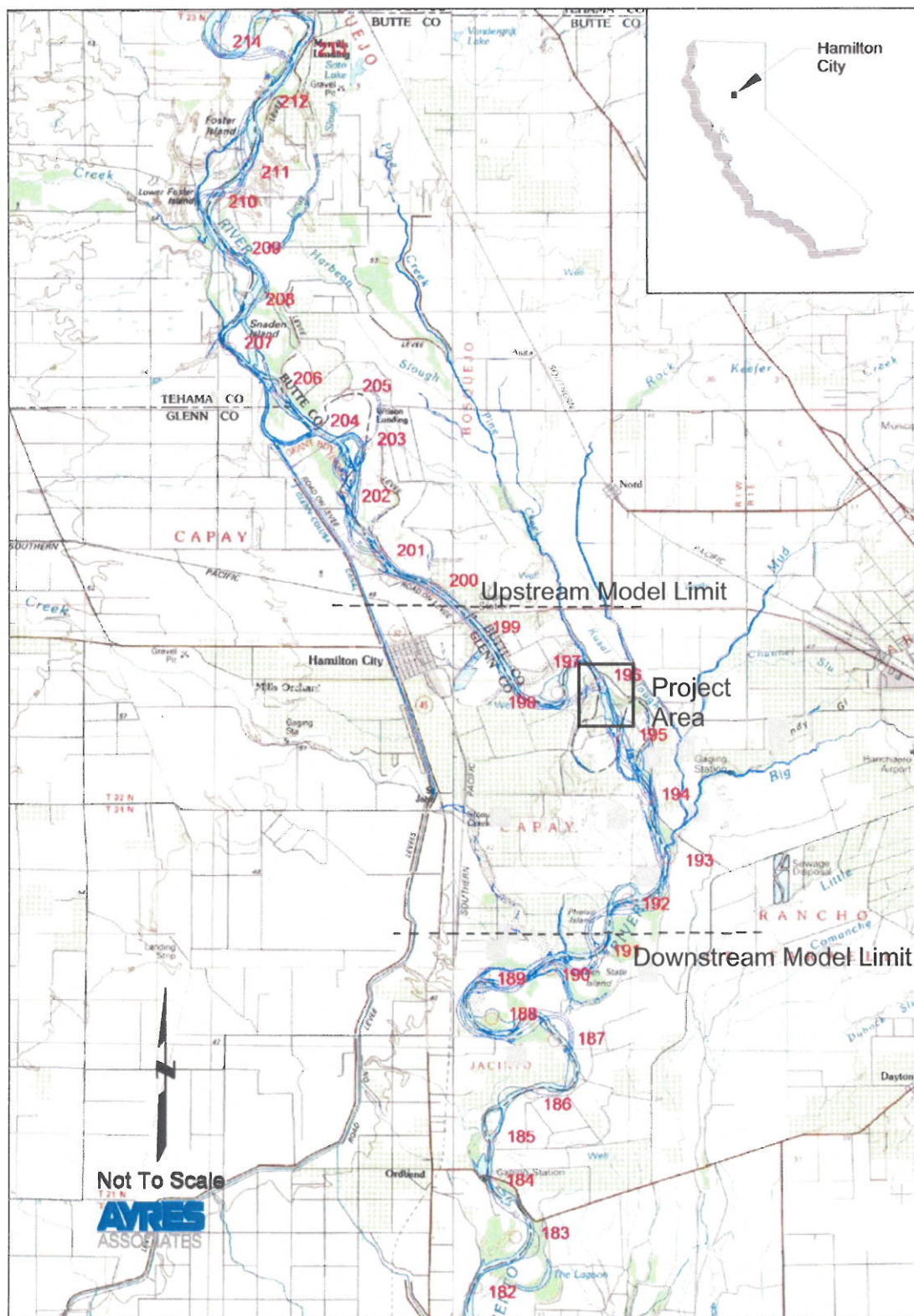
TWENTY-NINE: Debris that may accumulate on the permitted encroachment(s) and related facilities shall be cleared off and disposed of outside the floodway after each period of high water.

THIRTY: The work area shall be restored to the condition that existed prior to start of work.

THIRTY-ONE: The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation or maintenance of the flood control project to interfere, the permittee shall be required, at permittee's cost and expense, to modify or remove the permitted encroachment(s) under direction of the Central Valley Flood Protection Board or Department of Water Resources. If the permittee does not comply, the Central Valley Flood Protection Board may modify or remove the encroachment(s) at the permittee's expense.

THIRTY-TWO: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

THIRTY-THREE: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's or successor's cost and expense.



**Figure 1. Location Map Showing Project Location**



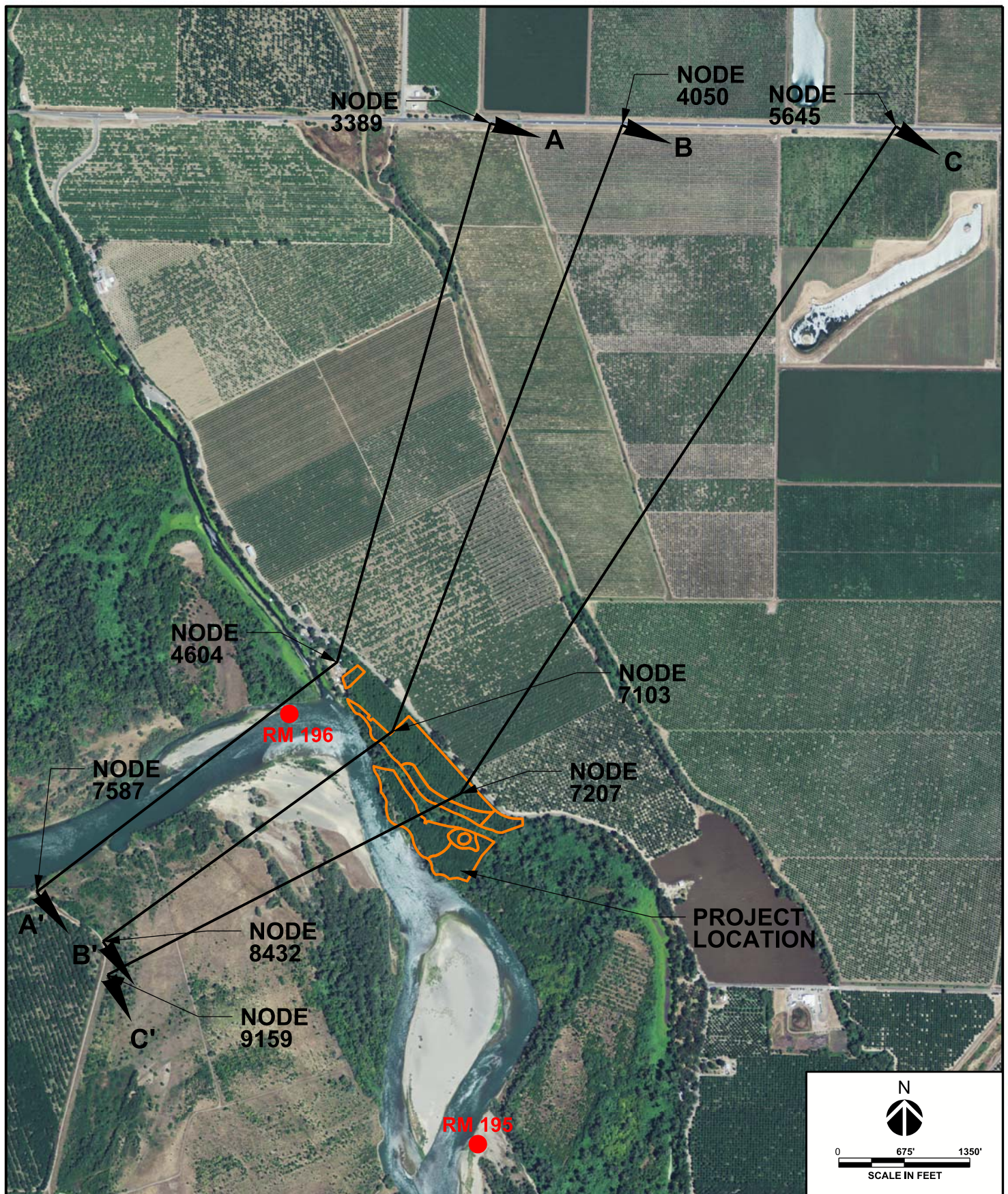


Figure 2, Plan View of Project Site and Cross Section Locations



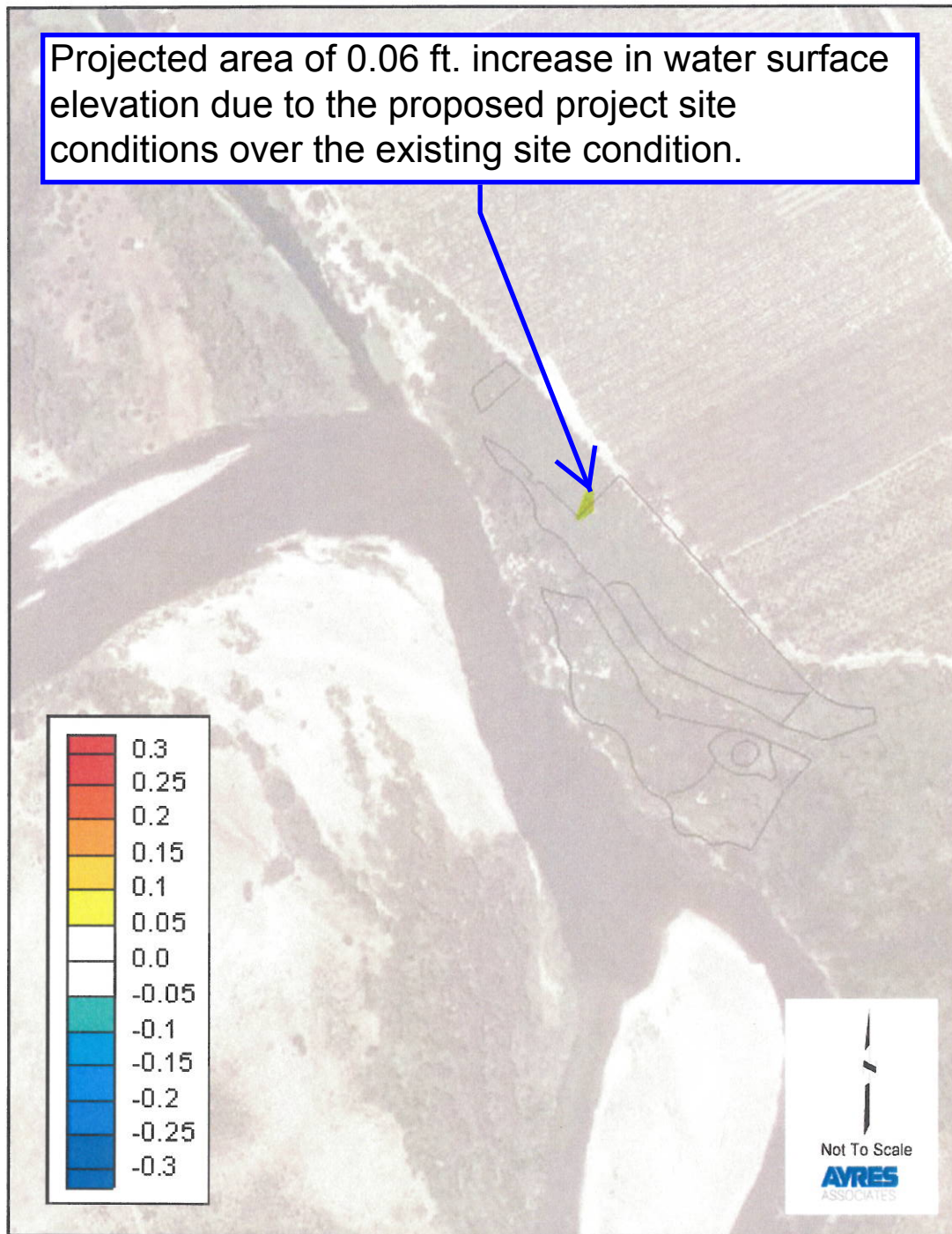


Figure 3, Water Surface Elevation Differential - With Project Condition to Existing Conditions

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